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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,975	02/10/2006	Chojiro Kuriyama	10921.381USWO	5511

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EXAMINER	
THOMAS, ERIC W	

ART UNIT	PAPER NUMBER
2831	

MAIL DATE	DELIVERY MODE
07/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/567,975	KURIYAMA, CHOJIRO	
	Examiner	Art Unit	
	Eric Thomas	2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11,13 and 15-17* is/are rejected.

7)☒ Claim(s) *12 and 14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 February 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Drawings

2. Figures 26-28 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

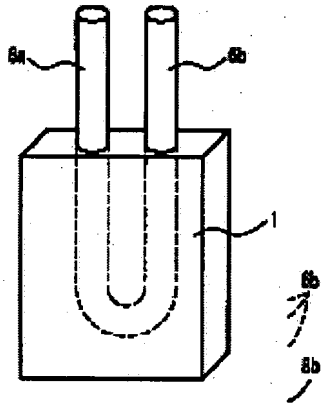
Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

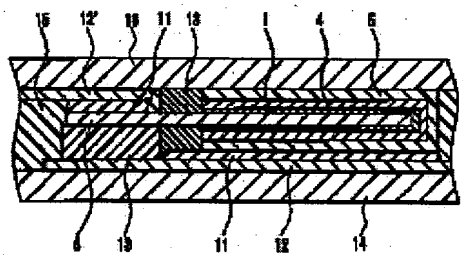
> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3, and 10 are rejected under 35 U.S.C. 102(a) as being anticipated by Masanori et al. (JP 2003332173).

【図3】



【図6】



Mansanori et al. disclose in fig. 3, a solid electrolytic capacitor comprising: a porous sintered body of metal particles ceramic particles; an anode partially inserted in the porous sintered body or conductive sintered body; second anode terminals provided by portions project from the porous sintered body; and a cathode formed on an obverse surface of the porous sintered toward the body, wherein circuit current flows from the first anode terminal toward the second anode terminal through the porous sintered body.

Regarding claim 3, Mansanori et al. disclose the anode comprises an anode wire having opposite ends projecting from the porous sintered body; and wherein the first and the second anode terminals are provided by the opposite ends.

Regarding claim 10, Mansanori et al. disclose the first anode terminal is higher in equivalent series inductance than the second anode terminal.

5. Claims 1, 3, 5-6, 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Taniguchi (US 5,184,287).

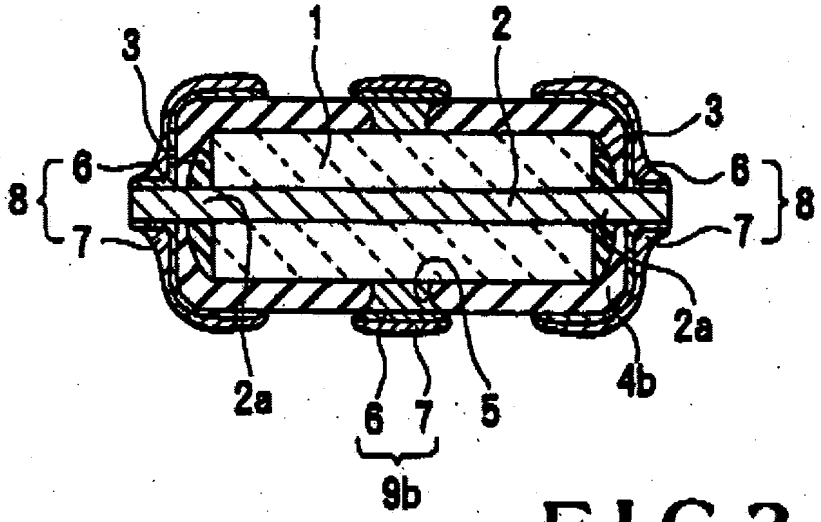


FIG.3

Taniguchi discloses a solid electrolytic capacitor comprising a porous sintered body of metal particles or conductive ceramic particles; an anode partially inserted in the porous sintered body; a first and a second anode terminals provided by portions of the anode which project from the porous sintered body; and a cathode formed on an obverse surface of the porous sintered body; wherein circuit current flows from the first anode terminal toward the second anode terminal through the porous sintered body (inherent feature). When the structure recited in the references is substantially identical to that of the claims, claimed properties or functions are presumed to be inherent.

Regarding claim 3, Taniguchi discloses the anode comprises an anode wire having opposite ends projecting from the porous sintered body; and wherein the first and second anode terminals are provided by the opposite ends.

Regarding claim 5, Taniguchi discloses the porous body is in a form of a flat plate.

Regarding claim 7, Taniguchi discloses the porous sintered body includes at least two side surfaces standing in a thickness direction; and wherein the first and the second anode terminals projected from two different side surfaces.

Regarding claim 8, Taniguchi discloses the porous sintered body is flat in section.

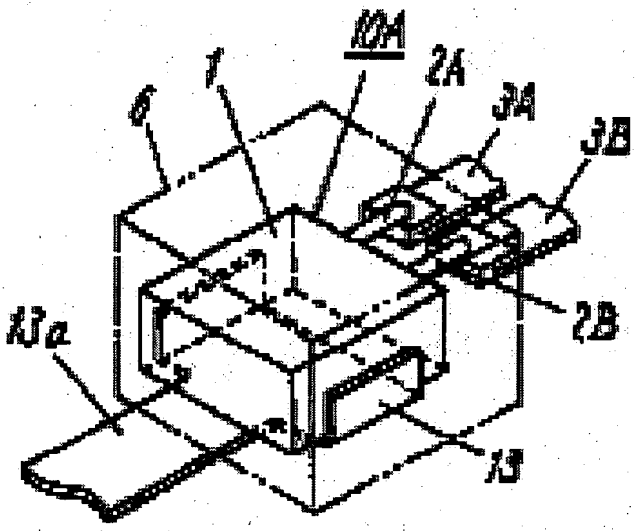
Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-2, 5-6, 9, 11, 13, 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-306774 ('774) in view of Edson et al. (US 2004/0066607).



'774 discloses in fig. 6, a solid electrolytic capacitor comprising: a porous sintered body of metal particles or conductive ceramic particles (1); an anode (2) welded to the porous sintered body; a first and a second anode terminals provided by portions of the anode which project from the porous sintered body; and cathode formed on an obverse surface of the porous sintered body; wherein circuit current flows from the first anode terminal toward the second anode terminal through the porous sintered body.

'774 discloses the claimed invention except for the anode being partially inserted in the porous sintered body.

Edson et al. teach (paragraph 49) that anode wires can be partially inserted into sintered anode bodies of solid electrolytic capacitors.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the capacitor of '774 with embedded anode wires, since such a modification would eliminate the need to weld the anode wire to the compact.

Regarding claim 2, '774 discloses the anode comprises a plurality of anode wires (2A, 2B).

Regarding claim 5, '774 discloses the porous sintered body is in a form of a flat plate.

Regarding claim 6, '774 discloses the porous sintered body includes a side surface standing in a thickness direction; and wherein the first and the second anode terminals project from the side surface.

Regarding claim 9, '774 discloses the porous sintered body is columnar or prismatic.

Regarding claim 11, '774 discloses first and second cathode terminals electrically connected to the cathode, wherein circuit current flows from the first cathode terminal toward the second cathode terminal through the cathode (see fig 4).

Regarding claim 13, '774 discloses the cathode includes a pair of metal members sandwiching the porous sintered body.

Regarding claim 15, '774 discloses conductive material intervenes between the paired metal members and the porous sintered body.

Regarding claim 16, '774 discloses a solid electrolytic capacitor comprising: a porous sintered body of metal particles; an anode connected to the porous sintered body; and a cathode formed on an obverse surface of the porous sintered body;

wherein the capacitor further comprises first and second cathode terminals electrically connected to the cathode, and wherein circuit current floes from the first cathode terminal toward the second cathode terminal through the cathode.

'774 discloses the claimed invention except for the anode being partially inserted in the porous sintered body.

Edson et al. teach (paragraph 49) that anode wires can be partially inserted into sintered anode bodies of solid electrolytic capacitors.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the capacitor of '774 with embedded anode wires, since such a modification would eliminate the need to weld the anode wire to the compact.

Regarding claim 17, '774 discloses an electrical circuit utilizing a solid electrolytic capacitor which comprises a porous sintered body of metal particles, an anode connected to the porous sintered body, first and second anode terminals provided by the anode, and a cathode; wherein circuit current flows from the first anode terminal toward the second anode terminal.

'774 discloses the claimed invention except for the anode being partially inserted in the porous sintered body.

Edson et al. teach (paragraph 49) that anode wires can be partially inserted into sintered anode bodies of solid electrolytic capacitors.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the capacitor of '774 with embedded anode wires, since such a modification would eliminate the need to weld the anode wires to the compact.

9. Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-306774 ('774) and Edson et al. (US 2004/0066607) as applied to claim 1 above, and further in view of JP 2000-12387 ('387).

'774 discloses the claimed invention except for the porous sintered body is made of niobium particles or niobium oxide particles.

'387 teaches that forming anode sintered pellets from niobium are known in the art.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the sintered body of '774 from niobium, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Regarding claim 8, '774 discloses the claimed invention except for the anode is flat in section.

'387 teaches that flat shaped anode leads (wires) are known in the art.

It would have been an obvious matter of design choice to form the capacitor of '774 with a flat anode, since such a modification would have involved a mere change in the shape of a component, a change of shape is generally recognized as being within the level of ordinary skill in the art. *Span-Deck Inc. V. FabCon, Inc., 215 USPQ 835.*

Allowable Subject Matter

10. Claims 12, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach or suggest (in combination with the other claimed features) a solid electrolytic capacitor wherein the first cathode terminal is higher in equivalent series inductance than the second cathode terminal (claim 12); and at least one of the paired metal members comprises a metal case accommodating the porous sintered body (claim 14).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7,167,357 – surface mount MELF capacitor

JP 6-267802 – solid electrolytic capacitor

6,741,451 – solid electrolytic capacitor

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Thomas whose telephone number is 571-272-1985. The examiner can normally be reached on Monday - Friday 6:30 AM - 3:45 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ewt

6-22-07

Eric Thomas
Primary Patent Examiner
AU 2831